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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,227	03/31/2004	Yechiel Gilo	4384-0105PUS1	3875
2292 7590 07/26/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER SASAN, ARADHANA	
			ART UNIT 1615	PAPER NUMBER
			NOTIFICATION DATE 07/26/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

# Office Action Summary

Application No.

10/813,227

Applicant(s)

GILO ET AL.

Examiner

Aradhana Sasan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/28/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Status of Application***

1. Claims 1-6 are being presented for examination.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 06/28/2004 was filed.

The submission is in compliance with the provisions of 37 CFR 1.97 and 1.98.

Accordingly, the examiner is considering the information disclosure statement.

See attached copy of PTO-1449.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindsay et al. (US 5,843,203) in view of Rasner et al. (US 6,745,720).

The claimed invention is a carrier granule comprising cellulose or wood fibers, mineral filler, and binder. The method of preparing the carrier granule by agglomeration, pelletization, drying and screening is also claimed.

Rasner teaches cellulose based animal litter composed of "discrete particles which are dual component granules" (Col. 3, lines 17-18). The "inner core of the granule is made with natural or artificial fibers, mineral filler and binder. More preferably, the fibers in the core are cellulose fibers, most preferably, fine wood fibers" (Col. 3, lines 30-

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33). "The dry cellulose fine fibers in the core and any cellulose fibers in the coating generally have a length of at most 5 millimeters, typically from 1-3 mm, and have a moisture content of less than 15 weight-%. ... Wood or paper fibers, function well and often have cost advantages" (Col. 5, lines 56-65). "The mineral in the core is a filler which gives the granule its desired specific weight" (Col. 5, lines 66-67). Calcium carbonate is disclosed as a preferred filler (Col. 6, lines 7-8). "The binder assists the cellulose fibers in providing structural form to the granule cores, and also increases the absorbency, thereof" (Col. 6, lines 13-15). Starch, acrylic polymer, polyvinyl acetate, and guar gum are disclosed as typical binders and unmodified starch is disclosed as a preferred binder (Col. 6, lines 18-23). The method of preparing the granule is disclosed as including the steps of: "preparing a homogenous core mixture comprising dry cellulose fine fibers, dry mineral filler, and binder; wetting and agglomerating that mixture to prepare wet agglomerated core particles" (Col. 7, lines 60-65). The process includes dry blends preparation, agglomeration, wet screening, coating, drying, and dry screening (Col. 8, line 31 – Col. 9, line 40). Example 1 discloses a core composition with wood fibers (35%), calcium carbonate (61%), and unmodified starch (4%) (Col. 9, lines 56-65). The claimed core composition is: "15-45% weight-% dry cellulose fine fibers, 40-80 weight-% dry mineral filler having a moisture content of less than 12 weight-%, and 0.5-10 weight-% binder" (Col. 10, lines 44-49).

Rasner does not expressly teach the properties (bulk density, particle size) of the cellulose fibers used in the granules.

Lindsay teaches a granular agricultural carrier comprised of 10-100% plant fibers, 0-90% mineral filler, and a low melting pesticide (Col. 1, lines 41-44). Agglomerated cellulosic granules (under the trademark BIODAC®) are the preferred carrier granules (Col. 2, lines 18-20). Lindsay teaches, "... the combination of the large interstitial spaces of the carrier granules with the low melting point chemicals is important in this treatment, resulting in an unexpected increase in the liquid holding capacity of the granules. When a liquid is added to granules, it usually flows freely in and out of the spaces. When a low melting chemical is present in the liquid, it is believed that the chemical tends to crystallize in the interstitial spaces" (Col. 2, lines 55-62). Example 4 of this reference discloses free-flowing granules that "retained desirable characteristics even after storage of 0°C or 50°C" (Col. 4, lines 25-34).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make a granule composition comprising cellulose fibers, mineral filler, and binder, as suggested by Rasner, and combine it with the agricultural cellulosic granules, as taught by Lindsay, and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Rasner teaches, "the cellulose fibers serve both as a structural skeleton as well as being highly absorbent materials ... they also contribute to the formation of cavities (pores) within the cores, thus reducing product weight. The fiber size distribution of the cellulose fibers in the core should be such that the combination of short and long fibers will contribute to the development of a strong yet open structure that will allow liquids to penetrate into the core" (Col. 5, lines 46-56).

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Regarding instant claim 1, the limitation of 32-45 weight-% of cellulose fibers, 53-65 weight-% mineral filler, and 3-7 weight-% binder would have been obvious to one skilled in the art over the Rasner teaching of 15-45% weight-% dry cellulose fine fibers, 40-80 weight-% dry mineral filler, and 0.5-10 weight-% binder" (Col. 10, lines 44-49). The commercially available BIODAC® cellulose complex product (8/30 mesh) has the bulk density (39±3 lbs/cubic foot), particle size (5% maximum through 8 mesh, 90% minimum retained on 30 mesh), moisture content (<5%), resistance to attrition (>97%) (BIODAC® composition). Therefore, the limitations of bulk density and particle size of the cellulose fibers would have been obvious variants to one skilled in the art over the BIODAC® composition as used by Lindsay. The bulk density of the mineral filler would have been obvious to one skilled in the art over the calcium carbonate teaching of Rasner. The limitation of the particle size, moisture content, resistance to attrition, and bulk density of the granule would have been obvious to one skilled in the art over the components of the granule (cellulose fibers, mineral filler and binder) and process of manufacture as taught by Rasner. One skilled in the art would vary the levels of components during the process of routine experimentation in order to optimize the carrier capacity of the granules and the properties (particle size, moisture content, resistance to attrition, and bulk density) associated with the granule would be modified accordingly.

Regarding instant claims 2 and 5, the bulk density of the granule would have been obvious to one skilled in the art over the granule containing cellulose fibers, mineral filler, and binder, as taught by Rasner, and the cellulose fiber in the agricultural

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carrier, as taught by Lindsay. One skilled in the art would vary the levels of components during the process of routine experimentation in order to optimize the carrier capacity of the granules and the bulk density associated with the granule would be modified accordingly. Regarding the limitation of the bulk density of calcium carbonate of instant claim 5, one of ordinary skill in the art would use different grades of calcium carbonate that are available during the process of routine experimentation.

Regarding instant claim 3, the limitation of mineral fillers would have been obvious to one skilled in the art over the teaching of calcium carbonate taught by Rasner.

Regarding instant claim 4, the limitation of the binder would have been obvious to one skilled in the art over the teaching of unmodified starch taught by Rasner.

Regarding instant claim 6, the limitation of the steps of the process of preparing the carrier granules would have been obvious to one skilled in the art over the Rasner teaching of "preparing a homogenous core mixture comprising dry cellulose fine fibers, dry mineral filler, and binder; wetting and agglomerating that mixture to prepare wet agglomerated core particles" (Col. 7, lines 60-65).

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

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1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1, 3-4, and 6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5-12, and 15 of copending Application No. 11/256,099 ('099 hereinafter). Although the conflicting claims are not identical, they are not patentably distinct from each other.

The claimed invention is a manufacture of carrier granules comprising cellulose or wood fibers, mineral filler, and binder. The carrier granules are prepared by agglomeration, pelletization, drying and screening.

Claims 1, 3, 5-12, and 15 of '099 are drawn to a quickly dissolving carrier granule comprising wood fibers, mineral filler, and starch-based binder. Although the percentage of wood fibers, mineral filler, and binder are not identical to those in the instant claims, one with ordinary skill in the art would find it obvious to modify the percentages in order to optimize the dissolving characteristics of the carrier granule. The cellulose fibers of instant claims and of '099 have a bulk density of less than 20 pounds per cubic foot. Although the bulk density of the mineral fillers of instant claims and those of '099 are not identical (less than 65 pounds per cubic foot for instant claims versus less than 75 pounds per cubic foot for '099), the variation would be obvious to one of ordinary skill in

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the art. The particle size, moisture content, and resistance to attrition of the final granule of instant claims and of '099 are identical. The mineral fillers of instant claims and of '099 are identical. The particle size variation of the mineral fillers of instant claims and of '099 would have been obvious to one of ordinary skill in the art because a smaller particle size would be preferred for a quicker dissolving carrier granule. The methods for making a carrier granule of instant claims and of '099 are identical.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 1-6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 4-8, and 10 of copending Application No. 11/335,556 ('556 hereinafter). Although the conflicting claims are not identical, they are not patentably distinct from each other.

Claims 1, 4-8, and 10 of '556 are drawn to a carrier granule comprising wood fibers, mineral filler, and starch-based binder. Although the percentage of wood fibers, mineral filler, and binder are not identical to those in the instant claims, one with ordinary skill in the art would find it obvious to modify the percentages in order to optimize the dissolving characteristics of the carrier granule. The cellulose fibers of instant claims and of '556 have a bulk density of less than 20 pounds per cubic foot. Although the bulk density of the mineral fillers of instant claims and those of '556 are not identical (less than 65 pounds per cubic foot for instant claims versus 65-75 pounds per cubic foot for '556), the variation would be obvious to one of ordinary skill in the art. The particle size, moisture content, and resistance to attrition of the final granule of instant

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claims and of '556 are identical. The mineral fillers and methods for making a carrier granule of instant claims and of '556 are identical.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.


**Conclusion**

8. No claims are allowed.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aradhana Sasan whose telephone number is (571) 272-9022. The examiner can normally be reached Monday to Thursday from 6:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached at 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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